

## HYGIENIC BALL VALVES M3H TRUE BORE (2 1/2" – 4" ASME BPE)

### DESCRIPTION

M3H three piece body ball valves are isolating valves designed for use with clean steam, condensate and other gases and liquids used in high purity and aseptic processes.

The valve is not designed as a control valve and should only be used as an isolating valve, fully open or fully closed.

The product is mainly designed for the pharmaceutical, biotech, semiconductor, cosmetics, fine chemical, food and beverage industries.

### MAIN FEATURES

True bore floating ball design.

A351 CF3M body and ends with ferrite content of less than 2% and low sulphur between 0,005 and 0,017%.

Can be serviced without removal from pipeline.

Bidirectional.

Anti blow out proof stem.

ISO 5211 mounting.

### STANDARD SURFACE FINISH

Internal wetted parts:  $\leq 0,51$  micron Ra – SF1.

External: as casted.

Ultrasonic cleaning.

### OPTIONS:

Antistatic device.

Different sealing materials.

Degreased for oxygen use.

Tube weld with loose body flanges (360° rotation after installation).

Cavity filler.

### USE:

Clean steam, gases and liquids compatible with the construction.

### AVAILABLE MODELS:

M3H – Investment casting.

### SIZES:

2 1/2" to 4".

### CONNECTIONS:

According to ASME BPE.

TC – Sanitary clamps.

ETO – Extended tube orbital welding.

TC / ETO – Combination.

### PACKAGING:

Assembling and packaging in a clean room certified according to ISO 14644-1.

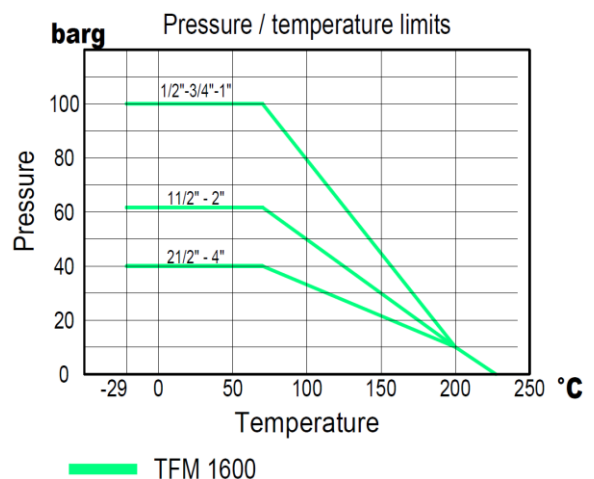
The product is end capped and sealed with recyclable thermo-shrinkable plastic film, to avoid contamination.

### INSTALLATION:

See IMI, installation and maintenance instructions.



CE MARKING (PED – European Directive)	
PN40	Category
2 1/2" to 4"	1 (CE marked)



Working pressure may be limited by the valve connections.

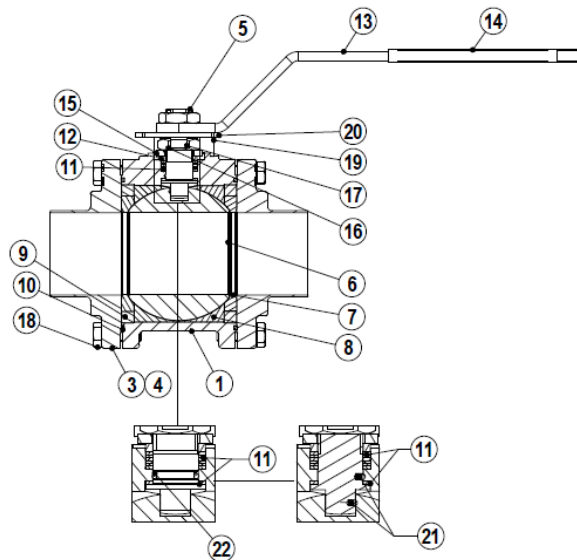
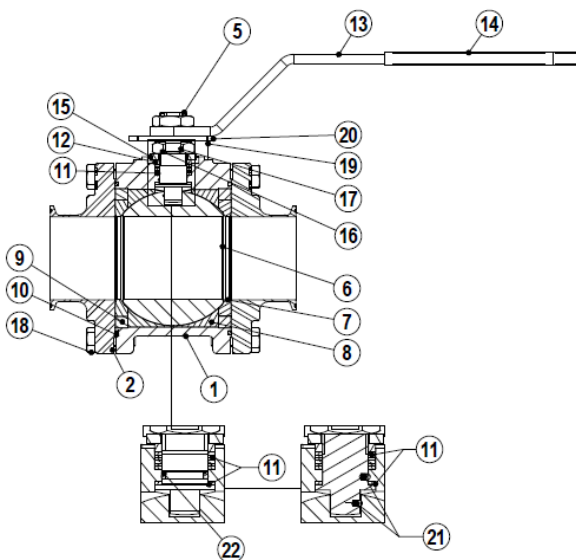
MATERIALS		
POS. N°	DESIGNATION	MATERIAL
1	Valve body	CF3M / 1.4409
2	TC end connection	CF3M / 1.4409
3	Tube weld end connection	CF3M / 1.4409 (integral)
3	Tube weld end connection	AISI 316L / 1.4404 (360° rotation)
4	*** Flange	AISI 316L / 1.4404
5	Stem	AISI 316L / 1.4404
6	* Valve ball	AISI 316L / 1.4404
7	* Standard seat	TFM 1600
8	* Cavity filler seat	TFM 1600
9	Body ring	AISI 316L / 1.4404
10	* Body seal	PTFE
11	* Stem seals	TFM 1600
12	* Spacer	AISI 316 / 1.4401
13	Handle	AISI 304 / 1.4301
14	Handle end	Vinyl
15	* Spring washers	AISI 304 / 1.4301
16	Compression nut	AISI 304 / 1.4301
17	* Lock washer	AISI 304 / 1.4301
18	Fixing bolt	AISI 304 / 1.4301
19	Stop pin	AISI 304 / 1.4301
20	Handle stopper	AISI 304 / 1.4301
21	** Antistatic device	AISI 316 / 1.4401
22	O-ring	Viton

\* Available spare parts; \*\* On request.

\*\*\* Loose flange only applied on the 360° rotation optional version.

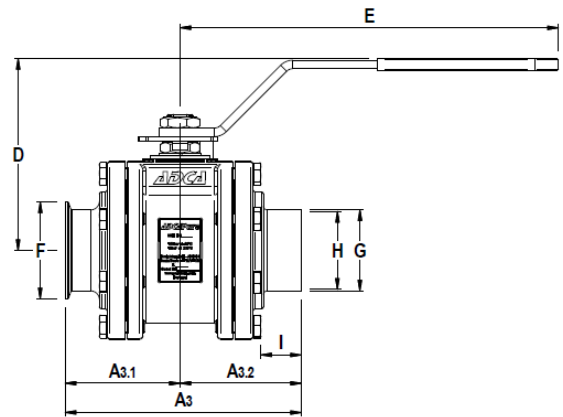
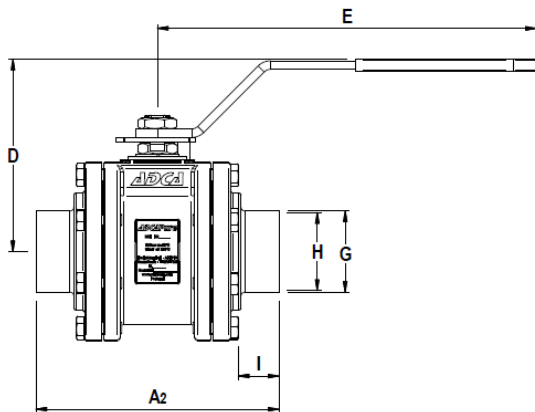
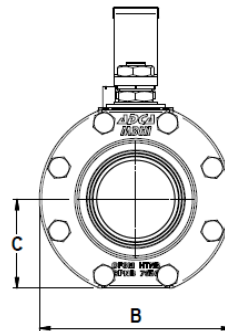
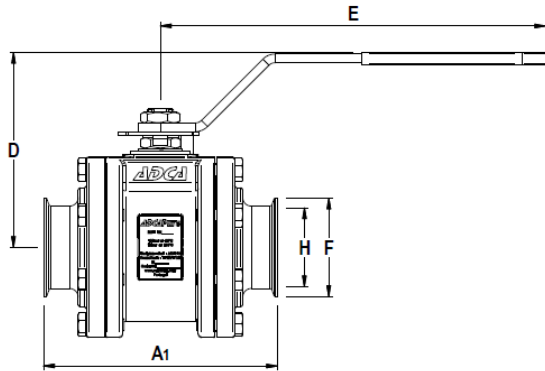
FDA / USP Class VI seals certificate on request.

All valves have a serial number. In case of non standard valves this number must be supplied if spare parts are ordered.

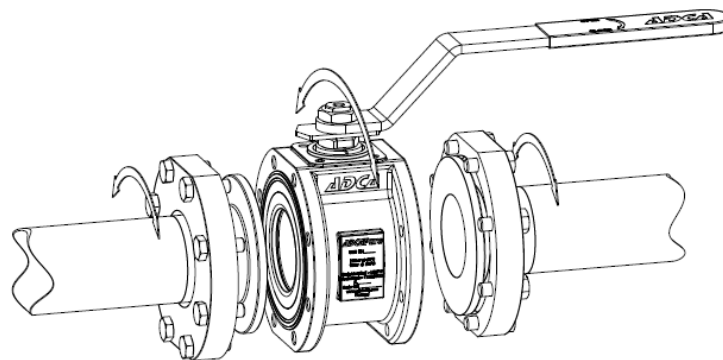


**DIMENSIONS (mm) ASME BPE**

SIZE	A1	A2	A3	A3.1	A3.2	B	C	D	E	ØF	ØG	ØH	I	BALL PORT	ISO 5211	WGT. (kg)
2 1/2"	190	203	196,3	95	101,5	160	72,5	169	355	77,5	63,5	60,2	37	60,2	F7	13,3
3"	216	228	222	108	111	180	83,5	180	355	91	76,2	72,9	38	72,9	F7	18,6
4"	254	267	260,5	127	133,5	220	101,5	198	460	119	101,6	97,4	44	97,4	F10	29,6



**Tube weld easy and quick installation - optional**



Loose body flanges make it possible to install the valve without aligning of welded end connections. After installation the valve can rotate on 360° for the desired orientation.

ORDERING CODES M3H											
<b>Valve model</b>		MH	.			F	F			CB	65
M3H 3 pieces ball valve CF3M		MH									
<b>Lever handle</b>											
Flat lever handle stainless steel / plastic cover											(*)
Flat lever handle stainless steel / plastic cover w/ lockable system											3
Bare stem											9
<b>Material</b>											
CF3M / 1.4409											(*)
<b>Seat design</b>											
Standard seats											(*)
Cavity fillers											F
<b>Seat material</b>											
TFM 1600											F
<b>Surface finish, special services and options</b>											
Standard surface finish (mechanical polishing)											(*)
Electropolishing											1
Oxygen cleaning											2
<b>Antistatic device</b>											
None											(*)
Antistatic device											A
<b>End connections</b>											
TC – Sanitary clamps ASME BPE											CB
ETO – Extended tube orbital welding ASME BPE (integral, no rotation design)											ITB
ETO – Extended tube orbital welding ASME BPE (360° rotation design)											TB
TC / ETO – Combination ASME BPE (integral, no rotation design)											CITB
TC / ETO – Combination ASME BPE (360° rotation design)											CTB
<b>Ball port</b>											
True bore (standard)											(*)
Full bore											NA
<b>Size</b>											
21/2"											65
3"											80
4"											100
<b>Special valves / Extras</b>											
Full description or additional codes have to be added in case of a non standard combination											E

(\*) Omitted if a standard valve is requested.  
 NA – Not available.